

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A sheet-shaped medium processing apparatus comprising:

discharging means for discharging a sheet-shaped medium that is transferred; a discharge tray onto which the sheet-shaped medium discharged from the discharging means is piled, the sheet-shaped medium processing apparatus arranging to pile the sheet-shaped medium piled on the discharge tray; and

arranging means for performing an arranging function for arranging the sheet-shaped medium piled on said discharge tray after discharge from said discharging means at only a fixed position in a shift direction perpendicular to a discharge direction and for performing a sorting/arranging function for arranging the sheet-shaped medium of every copy at a different position in the shift direction perpendicular to said discharge direction,

wherein said arranging means includes a pair of arranging members and an arranging member driving device for operating the arranging members, and said arranging members include arranging sections that come into contact with end faces of said sheet-shaped medium such as to put two end faces of said sheet-shaped medium in parallel to said discharge direction therebetween, and

wherein a receiving portion is formed within a portion of an upper surface of said discharge tray, the receiving portion including front and rear points that are below the upper surface of said discharge tray, said front and rear points contacting said upper surface of said discharge tray so that part of said one pair of arranging members can extend below the upper surface of said discharge tray.

Claim 2 (Canceled).

COPY

Claim 3 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein step shaped relief sections are formed at a head of said arranging sections in said arranging members with a wider face-to-face interval than a face-to-face interval of said arranging sections.

Claim 4 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 3, wherein said face-to-face interval of the step shaped relief sections, in comparison with said face-to-face interval of the arranging sections, is a wider interval than half of a shift amount at the time of the sorting/arranging function of arranging the sheet-shaped medium while shifting a position by only a predetermined shift amount in the shift direction perpendicular to said discharge direction.

Claim 5 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 4, wherein said face-to-face interval of the step shaped relief sections, in comparison with said face-to-face interval of the arranging sections, is a wider interval than an interval in which an inroad amount of said arranging members into an inside of the sheet-shaped medium from an end face at the time of arranging the sheet-shaped medium is added to half of said shift amount at the time of the sorting/arranging function of arranging the sheet-shaped medium while shifting the position by only the predetermined shift amount in the shift direction perpendicular to said discharge direction.

Claim 6 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein, at a time of said sorting/arranging function, said arranging means arranges an ultimate sheet-shaped medium of a respective one of a plurality of copies,

and afterward moves in the shift direction perpendicular to said discharge direction to a wait position for an arrangement of a next copy while being evacuated upward.

Claim 7 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein, at a time of said sorting/arranging function, arrangement is conducted such that one of said arranging members is made not to move, and another of said arranging members reciprocates in the shift direction perpendicular to said discharge direction alternately in every copy.

Claim 8 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 7, wherein said wait position is an upper surface position within a range where a copy already aligned at a previous time is positioned.

Claim 9 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 7, wherein said arrangement using said arranging means prevents an initial sheet-shaped medium of a copy from aligning.

Claim 10 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein said one pair of arranging members includes a plate shaped body in which said arranging sections are located at a lowest section of said arranging members and at least two opposite surfaces opposing each other including plane surfaces perpendicular to said shift direction.

Claim 11 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein said arranging means includes moving means for moving the

arranging members in approaching/departing directions independently in which the moving means causes one side of said one pair of arranging members to move to another side, or vice versa.

Claim 12 (Canceled).

Claim 13 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein said receiving portion has a size capable of accommodating at least one of the arranging members when said arranging members arrange the sheet shaped medium at the minimum size.

Claim 14 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein said receiving portion has a size capable of accommodating at least one of said one pair of arranging members even when said arranging members move in the shift direction perpendicular to the discharge direction to sort or arrange the sheet-shaped medium.

Claim 15 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein when the sheet shaped medium is not piled on said discharge tray, the sheet-shaped medium is discharged from said discharging means when part of said one pair of arranging members is located below the piled surface of the sheet-shaped medium of said discharge tray.

Claim 16 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 1, wherein said arranging means has a supporting shaft for supporting said

arranging members capable of being rotated and a restricting member for restricting a rotation amount of said one pair of arranging members with said supporting shaft as a center.

Claim 17 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 16, wherein at least one of said one pair of arranging members is placed within said receiving portion of the upper surface of said discharge tray or an arrangement operation position contacting a top surface section of the sheet shaped medium piled on said discharge tray while rotating by a momentum of a weight of the arranging members.

Claim 18 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 10,

wherein an evacuation position includes departing from a position in which said one pair of arranging members contacts a top surface of the sheet-shaped medium piled on said discharge tray, and

wherein the sheet-shaped medium processing apparatus further comprises evacuating means for evacuating said one pair of arranging members while rotating from an arrangement operation position to said evacuation position.

Claim 19 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 10, further comprising:

an ascent and descent means for going up and down said discharge tray; and
a positioning means for determining a position of said discharge tray in an up-and-down direction due to said ascent and descent means at a discharge time of the sheet-shaped medium from said discharging means so that the upper surface of said discharge tray or the position of the up-and-down direction of the top surface of said sheet-shaped medium piled

on the upper surface of said discharge tray becomes a correct discharge position better suited for discharge of the sheet-shaped medium from said discharging means.

Claim 20 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 10, wherein a part of said one pair of arranging members contacting the sheet-shaped medium includes material having a first coefficient of friction lower than a second coefficient of friction of the sheet-shaped medium.

Claim 21 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 10, wherein said one pair of arranging members is operated by an arranging member driving device, and the arranging member driving device includes:

a fulcrum shaft configured to support said one pair of arranging members in which the fulcrum shaft is common to said one pair of arranging members;

a push-movement shaft configured to rotate the arranging members with the fulcrum shaft as a center while contacting respective action points on respective arranging members being shifted from said fulcrum shaft; and

a rotation stopping member configured to stop rotation respectively due to rotational momentum with said fulcrum shaft as the center by a weight of said arranging members, in which said fulcrum shaft serves as a guide shaft for guiding respective arranging members in an arrangement direction, and said rotation stopping member moves the arranging members in said arrangement direction.

Claim 22 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 21, further comprising:

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a switch-driving means for switching freely a condition of conducting push-movement of respective ones of said action points while acting on said push-movement shaft, wherein said push-movement shaft releases the push-movement.

Claim 23 (Previously Presented): An image forming apparatus comprising image forming means for conducting image formation on a sheet-shaped medium and conveying means for conveying the sheet-shaped medium subjected to the image formation, further comprising the sheet-shaped medium processing apparatus according to claim 1.

Claim 24 (Currently Amended): A sheet-shaped medium after-treatment apparatus ~~that has an~~ comprising after-treatment means for conducting after-treatment [[to]] on a sheet-shaped medium and conveying means for conveying the sheet-shaped medium ~~of being~~ subjected to the after-treatment, ~~is provided with~~ and further comprising the sheet-shaped medium processing apparatus according to claim 1.

Claim 25 (Previously Presented): A sheet shaped medium processing apparatus comprising:

a discharging device configured to discharge a sheet shaped medium that is transferred;

a discharge tray configured to pile the sheet shaped medium discharged from the discharging device, the sheet shaped medium processing apparatus arranging to pile the sheet shaped medium piled on the discharge tray; and

an arranging device configured to perform an arranging function for arranging the sheet shaped medium piled on said discharge tray after discharge from said discharging device at only a fixed position in a shift direction perpendicular to a discharge direction

and to perform a sorting/arranging function for arranging the sheet shaped medium of every copy at a different position in the shift direction perpendicular to said discharge direction,

wherein said arranging device includes a pair of arranging members and an arranging member driving device configured to operate the arranging members, and said arranging members include arranging sections that come into contact with end faces of said sheet shaped medium so as to put two end faces of said sheet shaped medium in parallel to said discharge direction therebetween, and

wherein a receiving portion is formed within a portion of an upper surface of said discharge tray, the receiving portion including front and rear points that are below the upper surface of said discharge tray, said front and rear points contacting said upper surface of said discharge tray so that part of said one pair of arranging members can extend below the upper surface of said discharge tray.

Claim 26 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein step shaped relief sections are formed at a head of said arranging sections in said arranging members with a wider face-to-face interval than a face-to-face interval of said arranging sections.

Claim 27 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein said face-to-face interval of the step shaped relief sections, in comparison with said face-to-face interval of the arranging sections, is a wider interval than half of a shift amount at a time of the sorting/arranging function of arranging the sheet shaped medium while shifting a position by only a predetermined shift amount in the shift direction perpendicular to said discharge direction.

Claim 28 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein said face-to-face interval of the step shaped relief sections, in comparison with said face-to-face interval of the arranging sections, is a wider interval than an interval in which an inroad amount of said arranging members into an inside of the sheet shaped medium from an end face at a time of arranging the sheet shaped medium is added to half of said shift amount at the time of the sorting/arranging function of arranging the sheet-shaped medium while shifting the position by only the predetermined shift amount in the shift direction perpendicular to said discharge direction.

Claim 29 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein at a time of said sorting/arranging function, said arranging device arranges an ultimate sheet shaped medium of a respective one of a plurality of copies, and afterward moves in the shift direction perpendicular to said discharge direction to a wait position for an arrangement of a next copy while being evacuated upward.

Claim 30 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein at a time of said sorting/arranging function, arrangement is conducted such that one of said arranging members is made not to move, and another of said arranging members reciprocates in the shift direction perpendicular to said discharge direction alternately in every copy.

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Claim 31 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein said wait position is an upper surface position within a range where a copy already aligned at a previous time is positioned.

Claim 32 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein said arrangement using said arranging device prevents an initial sheet shaped medium of a copy from aligning.

Claim 33 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein said one pair of arranging members includes a plate shaped body in which said arranging sections are located at a lowest section of said arranging members and at least two opposite surfaces opposing each other including plane surfaces perpendicular to said shift direction.

Claim 34 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein said arranging device includes a moving device configured to move the arranging members in approaching/departing directions independently in which the moving device causes one side of said one pair of arranging members to move to another side, or vice versa.

Claim 35 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein said receiving portion has a size capable of accommodating at least one of the arranging members when said arranging members arrange the sheet shaped medium at the minimum size.

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Claim 36 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein said receiving portion has a size capable of accommodating at least one of said one pair of arranging members even when said arranging members move in the shift direction perpendicular to the discharge direction to sort or arrange the sheet shaped medium.

Claim 37 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein when the sheet shaped medium is not piled on said discharge tray, the sheet-shaped medium is discharged from said discharging device when part of said one pair of arranging members is located below the piled surface of the sheet shaped medium of said discharge tray.

Claim 38 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein said arranging device has a supporting shaft configured to support said arranging members capable of being rotated and a restricting member configured to restrict a rotation amount of said one pair of arranging members with said supporting shaft as a center.

Claim 39 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein at least one of said one pair of arranging members is placed within said receiving portion of the upper surface of said discharge tray or an arrangement operation position contacting a top surface section of the sheet shaped medium piled on said discharge tray while rotating by a momentum of a weight of the arranging members.

COPY

Claim 40 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25,

wherein an evacuation position includes departing from a position in which said one pair of arranging members contacts a top surface of the sheet shaped medium piled on said discharge tray, and

wherein the sheet-shaped medium processing apparatus further includes an evacuating device configured to evacuate said one pair of arranging members while rotating from an arrangement operation position to said evacuation position.

Claim 41 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, further comprising:

an ascent and descent device configured to go up and down said discharge tray; and

a positioning device configured to determine a position of said discharge tray in an up-and-down direction due to said ascent and descent device at a discharge time of the sheet shaped medium from said discharging device so that the upper surface of said discharge tray or the position in the up-and-down direction of the top surface of said sheet shaped medium piled on the upper surface of said discharge tray becomes a correct discharge position better suited for discharge of the sheet-shaped medium from said discharging device.

Claim 42 (Previously Presented): The sheet-shaped medium processing apparatus according to claim 25, wherein a part of said one pair of arranging members contacting the sheet-shaped medium includes material having a first coefficient of friction lower than a second coefficient of friction of the sheet-shaped medium.

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Claim 43 (Previously Presented): The sheet shaped medium processing apparatus according to claim 25, wherein said one pair of arranging members is operated by an arranging member driving device, and the arranging member driving device includes:

a fulcrum shaft configured to support said one pair of arranging members in which the fulcrum shaft is common to said one pair of arranging members;

a push-movement shaft configured to rotate the arranging members with the fulcrum shaft as a center while contacting respective action points on respective arranging members being shifted from said fulcrum shaft; and

a rotation stopping member configured to stop rotation respectively due to rotational momentum with said fulcrum shaft as the center by a weight of said arranging members, in which said fulcrum shaft serves as a guide shaft for guiding respective arranging members in an arrangement direction, and said rotation stopping member moves the arranging members in said arrangement direction.

Claim 44 (Previously Presented): An image forming apparatus comprising an image forming device configured to conduct image formation on a sheet-shaped medium and a conveying device configured to convey the sheet-shaped medium subjected to the image formation, further comprising the sheet-shaped medium processing apparatus according to claim 25.

Claim 45 (Previously Presented): A sheet-shaped medium after-treatment apparatus comprising an after treatment device configured to conduct after-treatment on a sheet shaped medium and a conveying device configured to convey the sheet shaped medium

COPY

subjected to the after-treatment, further comprising the sheet-shaped medium processing apparatus according to claim 25.